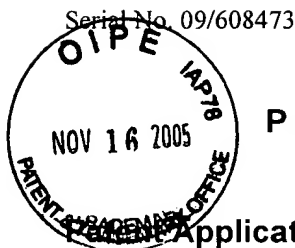


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IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Patent Application

Inventor(s): **John P Hearn**  
**Kim N Matthews**  
**Christopher C Yu**

Case: **1-21-1**

Serial No.: **09/608473**

Group Art Unit: **2155**

Filing Date: **June 30, 2000**

Examiner: **B. Barot**

Title: **MPEG Flow Identification For IP Networks**

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**ALEXANDRIA, VA 22313-1450**

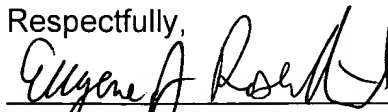
**SIR:**

Enclosed is a Reply Brief in response to the Examiner's Answer filed September 13, 2005.

In the event of nonpayment or improper payment of a required fee, the Commissioner is authorized to charge or credit **Lucent Technologies Deposit Account No. 12-2325** as required to correct the error.

Nov. 14, 2005  
Date

Respectfully,

  
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I hereby certify that this correspondence is being deposited in the United States postal service as First Class Mail in an envelope with sufficient postage addressed to: Mail Stop: Appeal Briefs-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 14, 2005.

  
Mary T. Poremba

Serial No. 09/608,473



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**Inventor(s):** J. P. Hearn

K. N. Matthews

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SIR:

**Reply Brief Under 37 C.F.R. 41.41**

This Reply Brief is in response is in response to the Examiner's Answer filed September 13, 2005.

**Argument**

**Ground I – Rejection Under 35 U.S.C. 112, Second Paragraph**

The Office Action stated that the phrase “may be” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. In Appellant's brief, applicants respectfully traversed this ground of rejection. In response, the Examiner's Answer stated applicants' position that the words following “may be” are not so much limitations of the claimed invention but rather are merely descriptive of a conventional element that may, but need not, exist within an IP data payload.

However, the Examiner's Answer appears to state in response that even though applicants' claim language discloses that MPEG-2 video is dependent only on the content of the IP data payload, if the real time protocol (RTP) header contains data A or data B, then it is unclear whether the limitations following the phrase "may be" are part of the claimed invention and the RTP header contains the conventional element, which is not relevant. The statement of the Response in the Examiner's answer is difficult to understand. Therefore, applicants feel compelled to try and clarify their position, as perhaps it was misunderstood, leading to the unclear Examiner response.

As such, applicant believes their claim language makes it clear that "any information in any real time protocol (RTP) header which may be therein" is descriptive of a single unit, with "therein" referring, of course, back to the IP data payload of the IP packet. It follows, naturally then, that there are two possibilities. Either 1) there is an RTP header in the IP data payload, or 2) there isn't. In other words, there "may be" an RTP header, or, perhaps, there is not one. However, whether there is an RTP header or not is **not** an element of applicants' invention.

In fact, if there is an RTP header, then applicants' claim language says to ignore any information in any such an RTP header in determining whether or not there is MPEG-2 video within the IP data payload of the IP packet. This comes about by virtue of the phrase "exclusive of" in the claim, which means that what follows the phrase in the claim language should be excluded from being considered part of the contents of said IP data payload of said IP packet. On the other hand, if there is no RTP header in the IP data payload, then of course there is **no** information in such a nonexistent RTP header, and so it cannot be used in determining whether or not there is MPEG-2 video within the IP data payload of the IP packet. In other words, applicants' claim merely says to look at only that information in the IP data payload that is **not** RTP header information when determining if there is MPEG-2 video within the IP data payload of the IP packet.

Notwithstanding what the Examiner's Answer may be suggesting, if there is an RTP header with the IP data payload, the contents of such RTP header are not considered, and are, therefore, irrelevant in determining if there is MPEG-2 video within the IP data payload of the IP packet.

Thus, use of the term "may be" a) is clear, b) is a correct and proper usage of the English language, and c) does **not** render any claim indefinite.

**Ground 2 - Rejection of Claims 1-6, 20-21, 26-27, 31, 34-36, and 40-43 Under 35**

**U.S.C. 102**

Claims 1-6, 20-21, 26-27, 31, 34-36, and 40-43 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,557,031 issued to Mimura et al. on April 29, 2003.

The Office Action states that Mimura et al. teaches all the limitations of the rejected claims. This ground of rejection was traversed by applicants in the Appeal Brief.

In the Examiner's Answer, it appears that applicants' first argument was ignored. There does not appear to be any rebutting of applicants' position that their invention is only directed at **identifying** those IP packets that contain video, and therefore all of the sections of Mimura et al. relating to **placing** MPEG video from a known MPEG video source, e.g., as received from a cable television or satellite system, within an IP packet, such as column 2, lines 29-54, are totally irrelevant to applicants' invention. This is because it is **known in advance** that all that can come out from the known MPEG video source is MPEG video. There is, therefore, **no** need to examine such content to determine its type. The fact that such content is MPEG video is already known.

In regard to applicants' argument that in Mimura et al. **IP** packets do **not** come out from the sources, but rather that MPEG Transport stream (TS) packets come from the sources and they are **not IP** packets, the Examiner's answer states that Mimura et al. suggest that the IP packets are used in the Internet instead of the MPEG-TS packets, and thus Mimura et al. indirectly disclose that IP packets come out of the sources. Unfortunately, this position of the Examiner's Answer appears to be contradicted by column 3, line 65 through column 4, line 29, of Mimura et al., which states:

A problem arising newly when the CATV networks are connected by use of the Internet, as mentioned above, that is, the problem of a need of the protocol conversion between an MPEG transport protocol used in the CATV network and an IP protocol used in the Internet can be solved by providing an interworking unit for performing the conversion between the MPEG-TS protocol and the Internet protocol. Requirements for a high-speed and low-cost processing in the interworking unit can be met by providing apparatus for improving a packet forming method and a packet conversion method for packets to be transmitted in the MPEG network and the IP network.

In other words, Mimura et al. is stating that the sources provide video only in MPEG-TS form and that must be converted to IP packets. By virtue of the need for conversion of the video supplied by the sources from MPEG-TS form, it is clear that IP packets do not come out of the sources, not directly, nor impliedly.

The Examiner's answer appears to ignore applicants' argument that those sections of Mimura et al. that relate to extracting MPEG video from IP packets do not teach applicants' invention. Instead, those sections teach that other techniques, which do not render applicants' invention obvious, are employed in the determination of whether or not the IP packets contain MPEG video. Furthermore, rather than addressing applicants' contentions, the Office Action appears to merely repeat the rejection of the Final Office Action. However, as previously noted, in Mimura et al., an IP packet is determined to contain video based on address information, and not by searching through the data payload of an IP packet. This can be seen, for example, from column 4, lines 52 through column 6, line 47, in which it is often repeated that Mimura et al. assigns a correspondence from the IP address of the IP packets containing video to a PID value, which is the 13-bit packet identifiers that come after the synchronization byte in the MPEG video transport stream (TS), which is used then used to route the TS video in the MPEG video network, e.g., a cable television or satellite system. In other words, it seems that in Mimura et al. that IP packets that contain MPEG video are identified based on information in the IP header, namely, an address, and then the PID is assigned or associated therewith. Clearly then in Mimura et al., the identification of a packet as containing video is not based on only information in the payload of the IP packet, as required by applicants' claims. Furthermore, there is no suggestion of searching through the IP data payload to determine if the packet contains video.

Applicant's reiterate that those sections of Mimura et al. cited by the Final Office Action in connection with claims 20-21, 31, 34-36, 40-43, namely, column 9, line 5 to column 12, line 15, and cited again in the Examiner's Answer, do not teach searching through a payload of an IP packet for a pattern and indicating that the packet contains MPEG video only if the pattern is found, nor does it teach determining whether a payload of an IP packet has a length equal to an integral multiple of the length of an MPEG-2

transport stream (TS) packet. Rather, most of that section deals with forming an MPEG transport stream packet which includes IP header information. No searching of IP packets is done for this purpose, and in fact, at that point, IP packets don't even exist. And when, in the cited section, MPEG video in IP packets is to be extracted for conversion to transport stream packets, there is no searching involved. In the cited section it is assumed that the IP packets are known to contain video. Instead, as explained in subsequent sections, as well as column 4, lines 52 through column 6, line 47, this appears to be based on the IP header information of the IP packet, and not based on the content of the data payload of the IP packet, which seems to only contain MPEG video in PES format.

Thus, there is no teaching or suggestion in Mimura et al. to determine that an IP packet contains MPEG-2 data based solely on the IP data payload, exclusive of any RTP header therein.

In response to applicant's argument that the Mimura et al. does not teach processing the IP packet with a priority assigned for packets containing video when the indicating step indicates that a packet contains video, the Examiner's answer simply states that it does, repeating the same citation as in the Final Office Action. There is no explanation rebutting applicants' previously set forth position that the cited section of Mimura et al., i.e., column 9, line 43 through column 10, line 11, does not teach processing the IP packet with a priority assigned for packets containing video when the indicating step indicates that the IP packet contains video. This is because there can be no such rebutting, in that the cited section is related only to the formation of MPEG-TS signals which include IP header information embedded therein. So while information that could be used to later form an IP packet is included in the MPEG-TS signal, there is no actual IP packet at this point, and so there cannot be any processing of an IP packet. Also, the cited section does not have an IP packet that was identified as having video based on only the IP data payload, because there was no identification of IP packets at this point, as recited in claim 27. Moreover, no language in the cited section indicates any type of priority processing. Indeed, the word "priority", or any synonym therefor, does not seem to appear in the cited section. Hence, applicants are mystified as to how

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the Examiner understands that section to be a teaching of treating video-containing IP packets with priority.

Applicants again note that their claims clearly exclude any information in the RTP header from being considered in determining whether an MPEG video signal is present or not. Thus, only non-header information of any type is searched and used to determine the presence of MPEG video. However, there is no such teaching in Mimura et al.

Thus, all of applicants' independent claims, and hence all of applicants' dependent claims, are allowable over Mimura et al.

**Conclusion**

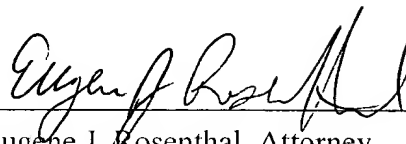
In view of the foregoing, it is submitted that the Examiner is in error. It is, accordingly, respectfully requested that the rejection of claims 1-20, 21, 26, 27, 31, 34-36, and 40-43 be reversed, and the application passed to issue.

Respectfully,

J. P. Hearn

K. N. Matthews

C.C. Yu

By   
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Date: Nov. 14, 2005